

July 2015

## Rawlins County

### Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

A total of 12 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Rawlins County economy.<sup>1</sup> These 12 sectors have a total direct output of approximately \$143 million and support 448.9 jobs in Rawlins County. Running the model for all 12 sectors simultaneously produces the following results:

#### Agriculture Contribution in Rawlins County

Impact Type <sup>2</sup>	Employment	% of Total Employment	Total Value Added <sup>3</sup>	% of Gross Regional Product <sup>4</sup>	Output <sup>5</sup>	% of Gross Regional Product
Direct Effect	448.9	19%	\$32,336,183	25%	\$143,206,980	109%
Indirect Effect	275.0	12%	\$18,135,536	14%	\$27,212,804	21%
Induced Effect	65.1	3%	\$4,445,925	3%	\$7,681,753	6%
Total Effect	789.1	34%	\$54,917,644	42%	\$178,101,538	136%

As shown in the above table, agriculture, food, and food processing supports 789.1 jobs, or 34% of the entire workforce in the county. These industries provide a total economic contribution of approximately \$178 million, roughly 136% of Gross Region Product (GRP). As noted below in the calculation of Gross Regional Product, imports and institutional sales are subtracted. Therefore, counties that import a relatively large amount of goods and services will have a reduced GRP which may lead to agricultural output being greater than GRP.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 12 agriculture, food, and food processing sectors is approximately \$55 million, or 42% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 42% of the total economy.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

<sup>1</sup> Article on building a contribution analysis in IMPLAN that avoids double counting:  
[https://implan.com/index.php?option=com\\_content&view=category&id=19](https://implan.com/index.php?option=com_content&view=category&id=19)

<sup>2</sup> Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

<sup>3</sup> Value Added = Labor Income + Indirect Business Taxes + Other Property Type Income

<sup>4</sup> GRP = Final Demand of Households + Governments Expenditures + Capital + Exports - Imports - Institutional Sales

<sup>5</sup> Output = Intermediate Inputs + Value Added

In the top ten by employment, Support activities for agriculture and forestry is the top employer in the agriculture industry with 169.9 employees. This table also shows the amount of jobs that are created by the agriculture industry in Rawlins County.

#### Top 10 Industries Affected by Employment

Sector Description:	Total Employment	Total Output
Support activities for agriculture and forestry .....	169.9	\$11,186,948
Grain farming .....	130.3	\$62,456,671
Veterinary services .....	91.5	\$5,145,851
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming .....	83.4	\$29,585,159
All other crop farming.....	54.2	\$9,425,622
Animal production, except cattle and poultry and eggs.....	37.5	\$5,198,149
Wholesale trade.....	36.4	\$8,069,109
Dairy cattle and milk production.....	23.8	\$6,060,507
Monetary authorities and depository credit intermediation .....	17.0	\$2,594,768
Maintenance and repair construction of nonresidential structures .....	9.4	\$1,410,203

The Grain farming industry directly contributes approximately \$62 million to Rawlins County's economy. This table also shows how much revenue is generated in other industries by having a strong agriculture industry.

#### Top 10 Industries Affected by Output

Sector Description:	Total Employment	Total Output
Grain farming .....	130.3	\$62,456,671
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming .....	83.4	\$29,585,159
Other animal food manufacturing.....	8.8	\$12,700,534
Support activities for agriculture and forestry .....	169.9	\$11,186,948
All other crop farming.....	54.2	\$9,425,622
Wholesale trade.....	36.4	\$8,069,109
Dairy cattle and milk production.....	23.8	\$6,060,507
Animal production, except cattle and poultry and eggs.....	37.5	\$5,198,149
Veterinary services .....	91.5	\$5,145,851
Farm machinery and equipment manufacturing.....	8.4	\$5,062,234

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture sector and the output they contributed to Rawlins County's economy.

[illegible]

All 105 counties in Kansas have IMPLAN models with an agriculture contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Kansas, the retail sector was omitted.